



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.        | F       | LING DATE  | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |  |
|------------------------|---------|------------|----------------------|---------------------|------------------|--|
| 10/624,607 07/23/2003  |         | 07/23/2003 | Kang-Seok Cho        | 1572.1135           | 7596             |  |
| 21171                  | 7590    | 10/17/2005 |                      | EXAM                | EXAMINER         |  |
| STAAS & I<br>SUITE 700 | HALSEY  | LLP        | CASIANO,             | CASIANO, ANGEL L    |                  |  |
|                        | YORK AV | ENUE, N.W. | ART UNIT             | PAPER NUMBER        |                  |  |
| WASHINGT               | ON, DC  | 20005      | 2182                 |                     |                  |  |

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |  | Application No.                          | Applicant(s)                 |  |  |  |  |  |
|--|--|--|------------------------------|--|--|--|--|--|
|  | Office Action Summers  | 10/624,607                               | CHO, KANG-SEOK               |  |  |  |  |  |
|  | Office Action Summary  | Examiner                                 | Art Unit                     |  |  |  |  |  |
|  |  | Angel L. Casiano                         | 2182                         |  |  |  |  |  |
|  | The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply       |  |                              |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |  |  |                              |  |  |  |  |  |
| Status   |  |  |                              |  |  |  |  |  |
| 1)⊠  | Responsive to communication(s) filed on 28 Ju  | ılv 2005.                                |                              |  |  |  |  |  |
|  | This action is <b>FINAL</b> . 2b) This action is non-final.  |  |                              |  |  |  |  |  |
| · · ·  | Since this application is in condition for allowan   |  | secution as to the merits is |  |  |  |  |  |
| ,_   | closed in accordance with the practice under E   | ·  |                              |  |  |  |  |  |
| Disposition of Claims  |  |  |                              |  |  |  |  |  |
|  | Claim(s) <u>1-21</u> is/are pending in the application.  |  |                              |  |  |  |  |  |
| •  | 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |                              |  |  |  |  |  |
|  | Claim(s) is/are allowed.   |  |                              |  |  |  |  |  |
| · ·  | Claim(s) <u>1-21</u> is/are rejected.  | •  | ·                            |  |  |  |  |  |
| · · · · · · · · · · · · · · · · · · ·  | Claim(s) is/are objected to.   |  |                              |  |  |  |  |  |
|  | Claim(s) are subject to restriction and/or   | r election requirement.                  |                              |  |  |  |  |  |
| •  | ion Papers   | • .                                      |                              |  |  |  |  |  |
|  |  |  |                              |  |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.  |  |  |                              |  |  |  |  |  |
| 10)  | 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.                                       |  |                              |  |  |  |  |  |
|  | Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).                  |  |                              |  |  |  |  |  |
|  | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). |  |                              |  |  |  |  |  |
| 11)  | The oath or declaration is objected to by the Ex   | aminer. Note the attached Office         | Action or form P1O-152.      |  |  |  |  |  |
| Priority (   | under 35 U.S.C. § 119  |  | -                            |  |  |  |  |  |
| ,  | Acknowledgment is made of a claim for foreign<br>☑ All b) ☐ Some * c) ☐ None of:   | priority under 35 U.S.C. § 119(a)        | )-(d) or (f).                |  |  |  |  |  |
| /.   | 1.⊠ Certified copies of the priority documents   | s have been received.                    |                              |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |  |  |                              |  |  |  |  |  |
|  | 3. Copies of the certified copies of the priority documents have been received in this National Stage                    |  |                              |  |  |  |  |  |
|  | application from the International Bureau  | •  | <b>3</b> .                   |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |  |  |                              |  |  |  |  |  |
|  |  | ·  |                              |  |  |  |  |  |
|  |  |  |                              |  |  |  |  |  |
|  |  |  |                              |  |  |  |  |  |
| Attachmen  |  |  |                              |  |  |  |  |  |
|  | e of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948)                                     | 4) Interview Summary Paper No(s)/Mail Da |                              |  |  |  |  |  |
| 3) 🔲 Inform  | mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) or No(s)/Mail Date  |  | Patent Application (PTO-152) |  |  |  |  |  |
| .S. Patent and T   | rademark Office  |  |                              |  |  |  |  |  |

## Response to Amendment

- 1. The present Office action is in response to Amendment dated 28 July 2005.
- 2. Claims 1-21 are pending. All claims have been examined.

#### Claim Objections

3. Previous Objection to claim 7 has been overcome with the present Amendment.

## Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs et al. [US 6,279,056 B1] in view of Shen [US 6,414,675 B1].

Regarding claim 1, Jacobs et al. teaches a <u>portable computer</u> (see Figure 6) having a power <u>switch</u> (see "main power switch"; Abstract). The reference teaches an optical device <u>drive</u> (see "CD-ROM"; Abstract); an audio signal processing <u>unit</u> processing the audio data of a disk inserted into the optical device drive (see Figure 2); and an <u>inputting unit</u> comprising a plurality of selection buttons (see Figure 5; col. 2, lines 46-52; col. 6, lines 18-26; col. 9, lines 43-44). In addition, the reference teaches keycodes inputting and selecting functions (see col.

12, lines 35-37; "keyboard 48", col. 3, line 67 to col. 4, line 1). Each selection button of the inputting unit has a selection inputting function in response to a plurality of operations of the optical device drive (see col. 2, line 35; col. 7, lines 39-41). The Jacobs et al. reference teaches supplying assistant power (see "selectively powering", col. 2, lines 15-16) while system power is turned off (see "main power", col. 4, lines 23-27). The audio unit controls the optical device drive based on selection by the selection button as inputted (see col. 9, lines 38-48).

The Jacobs et al. reference fails to teach, "an inputting unit comprising a touchpad and a plurality of touchpad selection buttons", as claimed. However, the Shen reference explicitly teaches "a pointing device used to enter and manipulate information when the embedded display program 70 is running" (see col. 5, lines 1-5). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to manipulate information in a personal computer, without requiring a booting process, offering "significant power-saving characteristics" and thus "extending battery operational times", as taught by Shen (see col. 5, lines 6-8).

As for claim 2, Jacobs et al. teaches a plurality of inputting button (see col. 2, lines 22-42) switches generating selection signals when the respective selection buttons are pressed. However, the reference fails to teach a touch pad provided with a touch pad IC unit generating a pointing signal in response to the selection signal as generated by the plurality of inputting button switches. Shen teaches a personal computer (PC; Abstract) having a touch pad provided with an IC unit generating a pointing signal in response (see Figure 3). At the time of the

invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures for the reasons stated above.

As for claim 3, Jacobs et al. teaches supplying selection signals based on an "ON" or "OFF" signal of the "main power" to the audio signal processing unit (see col. 2, lines 7-21).

As for claim 4, Jacobs et al. teaches supplying a selection signal generated in the input buttons based on the "ON" signal of the power switch (see "power switch 58", col. 4, lines 36-42). However, Jacobs et al. fails to teach a touch pad provided with a touch pad IC unit generating a pointing signal in response to the selection signal as generated by the plurality of inputting button switches. Shen teaches a personal computer (PC; Abstract) having a touch pad provided with an IC unit generating a pointing signal in response (see Figure 3). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures, for the reasons stated in the rejection of claim 2.

As for claim 5, Jacobs et al. teaches supplying a selection signal generated in the input buttons based on the "OFF" signal of the power switch (see "audio CD mode" and "power switch 58", col. 4, lines 59-42).

As for claim 6, Jacobs et al. teaches selectively powering and initializing hardware devices in the computer system (see col. 9, lines 53-55). The power is supplied to hardware devices based on the "ON" or "OFF" signals of the power switch (see "audio CD mode" and

"unpowered" col. 10, lines 4-7). Although the reference does not explicitly cite a "microcomputer" as performing the power supply, it would have been obvious to one of ordinary skill in the art at the time the invention was made that a controller or processor would have been necessary for performing and executing the POST test in the computer system as taught by Jacobs et al. (see col. 9, line 53).

As for claim 7, The Jacobs et al. reference teaches <u>supplying</u> assistant power (see "selectively powering", col. 2, lines 15-16) to the audio processing unit while system power is <u>turned off</u> (see "main power", col. 4, lines 23-27).

Regarding claim 8, Jacobs et al. teaches a <u>computer</u> (see Figure 6) having a power <u>switch</u> (see "main power switch"; Abstract) to enable or disable system power. The reference teaches an optical device <u>drive</u> (see "CD-ROM"; Abstract); and an <u>inputting unit</u> comprising a plurality of selection buttons (see Figure 5; col. 2, lines 46-52; col. 6, lines 18-26; col. 9, lines 43-44). In addition, the reference teaches keycodes inputting and selecting functions (see col. 12, lines 35-37; "<u>keyboard 48</u>", col. 3, line 67 to col. 4, line 1). Each selection <u>button</u> of the inputting unit has a selection inputting function in response to a plurality of operations of the optical device drive (see col. 2, line 35; col. 7, lines 39-41). The Jacobs et al. reference teaches <u>supplying</u> assistant power (see "selectively powering", col. 2, lines 15-16) while system power is <u>turned off</u> (see "main power", col. 4, lines 23-27). The audio unit controls the optical device drive based on selection by the selection button as inputted (see col. 9, lines 38-48). Jacobs et al. teaches supplying selection signals based on an "ON" or "OFF" signal of the "main power" to the audio

signal processing unit (see col. 2, lines 7-21) and a bus controller, which is unpowered if the computer system's main power is OFF and the device is operating in "audio CD mode" (See col. 10, line 4). However, the reference fails to teach a touch pad provided with a unit. Shen teaches a personal computer (PC; Abstract) having a touch pad provided with a unit (see Figure 3). Shen reference explicitly teaches "a pointing device used to enter and manipulate information when the embedded display program 70 is running" (see col. 5, lines 1-5). At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to manipulate information in a personal computer, without requiring a booting process, offering "significant power-saving characteristics", as taught by Shen (see col. 5, lines 1-5).

Page 6

As for claim 9, Jacobs et al. teaches a plurality of input buttons (see Figure 5).

As for claim 10, Jacobs et al. teaches controlling a CD-ROM drive that plays audio compact discs (CDs) (see col. 9, lines 21-24).

As for claim 11, Jacobs et al. discloses input of playback instructions for the audio CDs when a signal is supplied to the optical device driver (see col. 7, lines 39-41).

As for claim 12, the combination of references does not explicitly teach a DVD drive that plays digital versatile discs (DVDs). However, the combination teaches an optical drive (see Fig. 2). At the time of the invention, it would have been obvious to one of ordinary skill in the

art that optical drives often include compact disc (CD), <u>digital video disc (DVD)</u>, compact disc read write (CDRW) and DVD/CDRW drives.

As for claim 13, Jacobs et al. discloses input of playback instructions for the audio CDs when a signal is supplied to the optical device driver (see col. 7, lines 39-41). Nonetheless, the combination of references does not explicitly teach a DVD drive that <u>plays</u> digital versatile discs (DVDs). At the time of the invention, it would have been obvious to one of ordinary skill in the art that optical drives often include compact disc (CD), <u>digital video disc (DVD)</u>, compact disc read write (CDRW) and DVD/CDRW drives.

Regarding claim 14, this corresponds to the method for implementing the computer having an optical device drive, as disclosed in claim 8. The combination of references as exposed above, teaches or suggests the limitations corresponding to the claimed computer. Therefore, the combination of references teaches the limitations directed to the method. This claim is rejected under the same rationale.

As for claims 15-18, these correspond to the method for implementing the computer having an optical device drive, as disclosed in claims 10-13. The combination of references as exposed above, teaches or suggests the limitations corresponding to the claimed computer. Therefore, the combination of references teaches the limitations directed to the method. These claims are rejected under the same rationale.

Regarding claim 19, this corresponds to the machine-readable medium for implementing the computer having an optical device drive, as disclosed in claim 8. The combination of references as exposed above, teaches or suggests the limitations corresponding to the claimed computer. Therefore, the combination of references teaches the limitations directed to the machine-readable medium. This claim is rejected under the same rationale.

As for claims 20-21, these correspond to the machine-readable medium for implementing the computer having an optical device drive, as disclosed in claims 10-11. The combination of references as exposed above, teaches or suggests the limitations corresponding to the claimed computer. Therefore, the combination of references teaches the limitations directed to the machine-readable medium. These claims are rejected under the same rationale.

### Response to Arguments

- 6. Applicant's arguments filed 28 July 2005 have been fully considered but they are not persuasive.
- 7. In the Remarks, applicant argues in substance that the combination of references (Jacobs et al. in view of Shen) does not teach "an inputting unit comprising a touch pad and a plurality of touch pad selection buttons for inputting movement and selection of a pointing cursor when the power switch is in an "ON" state, wherein each touch pad selection button of the inputting unit has a selection inputting function in response to a plurality of operations of the optical device drive when the power switch is in an "OFF" state", as disclose in claim 1. In the previous Office action, Examiner noted that Jacobs et al. does not teach a "touchpad", as

claimed. However, Examiner relied on the Shen reference, in particular Figure 3 to show the claimed limitation. Applicant argues that Shen discloses a touchpad, but that the CD control panel 60 (Figure 3) controls the CD drive and that this does not conform to the limitations recited in the claims. Examiner notes that the Shen reference teaches a CD control panel and that this is not a "touchpad". Nonetheless, the Shen reference is not limited to this embodiment. Column 5, at lines 1-5 includes, as part of "many minor alterations that can be made to PC system 50", a pointing device that could be used to enter and manipulate information. Therefore, Examiner respectfully submits that the Shen reference, taken in combination with the Jacobs et al. reference teaches or suggests all the claimed limitations.

#### Conclusion

- 8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
  - Chaiken et al. [6,792,480 B2] teaches status display being visible in a closed position and displaying a track number during play mode comprising a reduced power of a system.
  - Numano et al. [US 6,763,400 B2] teaches computer having control means for determining an operation state of an audio sources selecting switch when the computer is powered on/off, in a standby and a pause states
- 9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 571-272-4142. The examiner can normally be reached on 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/624,607

Art Unit: 2182

Page 11

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alc

13 October 2005

KIM HUYNH
PRIMARY EXAMINER

10/14/05